

**AMENDMENTS TO THE CLAIMS**

**CLAIMS LISTING:** This listing of Claims will replace ALL prior versions and listings of the Claims in the present application.

(Canceled) 1. A magnetic memory cell comprising first and second magneto-resistive devices connected in series, the first magneto-resistive device having a first sense layer, the second magneto-resistive device having a second sense layer, the first and second sense layers having different coercivities.

(Canceled) 2. The memory cell of claim 1, wherein the first and second devices are magnetic tunnel junctions.

(Canceled) 3. The memory cell of claim 2, wherein the first magnetic tunnel junction includes the first sense layer and a first pinned layer; and wherein the second magnetic tunnel junction includes the second sense layer and a second pinned layer.

(Canceled) 4. The memory cell of claim 2, wherein the sense layers of the first and second devices are back to back; and wherein the sense layers are separated by a layer of non-magnetic material.

(Canceled) 5. The memory cell of claim 2, wherein the first and second magnetic tunnel junctions share a pinned layer.

(Canceled) 6. The memory cell of claim 2, wherein hysteresis loops of the first and second junctions are nested.

(Canceled) 7. The memory cell of claim 1, wherein the sense layers in the first and second devices have different shapes.

(Canceled) 8. The memory cell of claim 1, wherein the sense layers in the first and second devices have different sizes.